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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,261	02/19/2001	Matthias Krull	1997DE403C/CIP	4929

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EXAMINER

MEDLEY, MARGARET B

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/788,261

Applicant(s)

KRULL ET AL.

Examiner

Margaret B. Medley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This Office action is in response to the request for continued examination (RCE) in Paper No. 17 dated April 16, 2003.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 16, 2003 has been entered.

The after final amendment in Paper No. 14 dated March 19, 2003 amending claim 1 has been entered of record.

The pending claims of record are claims 1-17.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

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had possession of the claimed invention. The limitation that the B) a flow improver consisting essentially of 1) one or more copolymers a) and b) and optionally consist of up to 4% by weight of vinyl acetate or up to 5% by weight of further co-monomers except vinyl acetate and 2) optionally an oil soluble co-additive selected terpolymers of ethylene" is considered as new matter. The adding of component "2) optionally an oil soluble co-additive" is in conflict with the first full paragraph of the specification at page 11 that the "fuel oils may comprise further oil soluble co-additives".

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the "B) a flow improve consisting of 1) a) and b), ...wherein the copolymers optionally consist essentially of up to 4%... acetate and 2) optionally an oil soluble co-additive... terpolymers of ethylene" is indefinite and confusing because the "optionally" term appear to be in conflict with the "consisting of" in line 5. It is unclear to the examiner as to how to ascertain the scope of the claims that applicant is intending to encompass.

In claims 3 and 4, the phrase " $R^3$  in the bivalent structural units (B2)" is confusing because it is unclear if the " $R^3$ " is referring to "formula (2) or (2a)" If applicant intends the " $R^3$ " to define "formula (2) and formula (2a)". Clarification is requested.

In claim 7, it is suggested that applicant may insert the phrase "of formula (2) of" after the term "unit" for clarity.

The "95% distillation point <360<sup>0</sup> C" in claim 15 is outside of the scope of "<350<sup>0</sup>C" of claim 1 and it is indefinite. It is suggested that in view of Table 2, that claim 15 should be cancelled.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2 and 5-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsubishi Petrochemical Co. Ltd. EP 217,602 in view of Admitted Prior Art and Brown et al (Brown) WO 95/23,200.

Mitsubishi '602 teaches and discloses fuel oil additives and fuel oil having improved flowability wherein the fuel oil is mineral oil, note page 5, lines 9-21 and page

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16, example B, and that the additives are one or more copolymers, note page 5, line 24 to page 7, lines 1-9. Patentee further teaches that the additives acts effectively on fuels having a B.P. range of 120<sup>0</sup>-500<sup>0</sup>C including not only fuels oils having a difference between the 20% distillation temperature and the 90% distillation temperature (D.T.) of at least 100<sup>0</sup>C. The additives improve both the flowability and plugging resistance of these oils, note page 5, lines 14-2. Mitsubishi teaches that the copolymer may be used in combination with other additives, e.g. pour points depressed and, note lines 10-15 of page 8.

It is noted at page 3, lines 23-27 that patentee discloses that there is very small difference between the temperature at which the precipitation of the crystals begins (the cloud point) and the temperature at which the crystals plug the filter or solidify (the cold filter plugging point or the pour point). It would be obvious to the skilled artisan in the art that the mineral oil of patentee having a pour point (PP) of -5<sup>0</sup> C, note 6 Ex. B, that the said oil inherently have a cloud point of less than -8<sup>0</sup> C.

Applicants' instant claims differ from those of the prior art in that applicants claim recite a 95% distillation point of less than 350<sup>0</sup> C and require that the mineral oil have sulfur contents of <500 ppm (claim 9) and <300 ppm (claim 10) and <100 ppm (claim 11). It is the Examiner's position that mineral oils having 95% distillation point of less than 350<sup>0</sup>C, and sulfur contents of <500, <300 or <100 ppm would be obvious in the view of applicants admission and Brown.

Applicants make admission on record at page 4 first paragraph of the instant application as admit prior art that conventional commercially available winter grades

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of diesel fuel have a cloud point of  $< -8^{\circ}\text{C}$ , particularly  $-15^{\circ}\text{C}$ , very narrow distillation cuts B.P. ranges of 20 to 90% by volume  $<120^{\circ}\text{C}$ , in particularly  $<100^{\circ}\text{C}$  and in some cases  $<80^{\circ}\text{C}$  and in distillation volume of 95% by volume at temperatures  $<360^{\circ}\text{C}$ , particularly  $<350^{\circ}\text{C}$  and especially  $<330^{\circ}\text{C}$ . It is further disclosed that diesel fuels having very low sulfur contents  $<500\text{ ppm}$  and in particularly  $<100\text{ ppm}$ .

It would be obvious to the skilled artisan in the art to use the low sulfur diesel fuels and commercially available winter grade diesel fuels of the admitted prior art as the fuel oil of '602 with the reasonable expectation that its additives will impart both the flowability and plugging resistance of the oils because the additives have been shown to impart the same properties to narrow distillation cuts and broad cut distillation fuel oils.

Brown's teaches and discloses fuel oil having a sulfur content of less than 0.01% weight, page 21, lines 9-11, a cloud point below  $-10^{\circ}\text{C}$ , page 3, lines 17-20, a boiling range (90-20%) of less than  $120^{\circ}\text{C}$ , a 95% distillation point of less than  $350^{\circ}\text{C}$  and a difference between CFPP and PP of less than  $10^{\circ}\text{C}$ , page 3, lines 1-7, Examples A-D in Table 2 on page 25 and 20, lines 6-end, and a low temperature flow improver comprising ethylene/unsaturated ester copolymers, page 11, line 21 to page 12, line 16. The said mineral oils are the same minerals oils made by applicant's admission at page 4 as Admitted Prior Art. The said low temperature flow improvers are the same flow improvers as those of the primary reference as well as, those of the instant claims of record.

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It would be obvious to the artisan in the art to use the mineral oils of Brown and low temperature flow improvers of the Admitted Prior Art as the mineral oils and low temperature flow improvers of the primary reference with the reasonable expectation that their additives will impart low temperature flow improving properties to the mineral oil fuel composition rendering the instant claims obvious. Brown and applicants' admission as Admitted Prior Art establish the state of the art knowledge at the time of filing of the claimed invention that the mineral oils having the same properties of the instant claims is old and well-known and that the said mineral oils are commercially available to the public render the instant claims obvious.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsubishi Petrochemical Co. Ltd. EP 217,602 in view of Admitted Prior Art and Brown et al (Brown) WO 95/23,200 as applied to claims 1-2 and 5-17 above, and further in view of Reimann et al (Reimann) 5,254,652.

Applicants' instant claims differ from those of the prior art in that the instant claims recite the copolymer (B) having a neoalkyl radical monomer wherein the prior art is silent to said teachings.

Reimann teaches that mineral oil distillates flow properties can be improved with terpolymers containing ethylene, vinyl acetate and neoalkyl radical monomers having melt viscosities at 140<sup>0</sup> C from 20 to 1000 M pas, note column 2 lines 33-68, column 4 lines 1-24 and Table 2. It would be obvious to the artisan in the art to substitute the neoalkyl radical monomer of Reimann for the ether or ester monomer of the primary



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reference with the reasonable expectation that the additive will impart its improved flow properties to the mineral oils further rendering the instant claims obvious.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9 of copending Application No. 09/760,319. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims fuel oil and copolymers are obvious variants of the fuel oils and copolymers of the related application No. 09/760,319 rendering the instant claims obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The examiner position is that Brown is silent with respect to the PP of its oils. However, the examiner's takes the position that Brown teaches the narrow range of special oil required under Arctic conditions that have the same or overlapping CP and CFPP. Therefore, it would be reasonably expected to the skilled artisan in the middle

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distillate fuel art that the oils of Brown would be reasonable expected to have the same or overlapping PP properties as that of the oils of the instant claims

Claims 1-6 and 9-17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 09/706,656. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claimed mineral oils and copolymers are obvious variants of the mineral oils and copolymers of related application No. 09/706,656 rendering the instant claims obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments filed April 16, 2003 have been fully considered but they are not persuasive.

Applicants' arguments with respect to the 112 issues are deemed moot in view of the new 112 rejections set forth supra.

Applicants allege that the instant claims exclude the comb polymers and therefore Brown teaches away from the present invention.

Applicants' arguments that Brown teaches away from the present invention in requiring the use of comb polymers is not convincing in that it is not clear from the pending claims as to the intended scope of the instant claims. The claims contain the open-ended phrase "comprising" that would not exclude the comb polymers of Brown. If applicants intend to exclude the comb polymers of Brown then the claims need to be amended to close the claims to the comb polymers of Brown.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret B. Medley whose telephone number is (703) 308-2518. The examiner can normally be reached on Monday--Friday from 7:30 a.m. to 6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (703) 306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

M.B. Medley/dh  
July 7, 2003

  
MARGARET MEDLEY  
PRIMARY EXAMINER